

### **Remarks**

Claims 1 – 8 are pending in this divisional application. The Examiner has rejected Claims 1 and 3-8 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,218,740 (hereafter “Dougherty”). Additionally, the Examiner has rejected Claim 2 under 35 U.S.C. § 103(a) as being obvious over Dougherty in view of U.S. Patent No. 5,333,971 (hereafter “Lewis”).

#### **1.) Rejection of Claims 1 and 3-8 under 35 U.S.C. § 102(b) for Anticipation**

Claim 1 has been rejected by the Examiner as being anticipated by Dougherty. The Examiner states that “Dougherty discloses a segment of sheet piling comprising a reinforcement (opposite 20, 21, that is convexly shaped) located at the angle between the panels”. Independent Claims 1 and 7 have been amended to claim a convex –shaped reinforcement located at the interior angle of the corner. Applicant responds to this rejection as follows:

##### **a.) Claim 1**

Amended Claim 1 is an independent claim for a segment of sheet piling with two elements: a plurality of panels that are joined together at a corner with an interior angle; and a re-enforcement with a convex cross-sectional area that is located in the interior angle between the panels. An overhead view of two joined segments **10a** and **10b** is shown in Figure 1 of the application. Figure 2 shows a detailed view of the corner **14** between two panels **12** of the sheet piling segment. The re-enforcement **22** is centered on the corner **14**. It has a convex cross-sectional shape that maximizes the strength of the corner while optimizing the use of materials. The convex shape helps prevent bulging and rupturing of the sheet panel segments at the corners. *See* Pages 4 – 5, Paragraph 19 of the Present Application. As shown in Figures 1 and 2, the re-enforcement **22** is located on the interior angle of the corner **14** that is formed by the two panels **12** of the sheet piling segment. The interior angle is the smaller of the two angles formed by the corner **14**. The exterior angle is the larger of the two angles and does not have a convex re-enforcement in the present invention.

In contrast, Dougherty shows a sheet piling segment with a generally convex-shaped corner. However, the convex shape of Dougherty is on the exterior angle of the corner. Further, the convex shape is merely a rounded corner and not a re-enforcement as claimed. As shown in Dougherty's Figure 1, the re-enforcements 20 and 21 are a concave shape that generally follows the line of the interior angle between the panels 17 - 19. The exterior angle has no re-enforcement, such as additional material, that is added to the corner.

In summary, Dougherty neither shows nor teaches a convex shaped re-enforcement that is located in the interior (*i.e.*, smaller) angle of the corner. Consequently, the anticipation rejection on the basis of Dougherty fails with respect to Claim 1 for at least these reasons.

*b.) Claims 3-6*

Claims 3 – 6 are dependent claims. Each of these claims depends either directly or indirectly from independent Claim 1. Consequently, the anticipation rejection on the basis of Dougherty fails with respect to Claims 3-6 for at least the reasons stated in Section 1.a.

*c.) Claim 7*

Claim 7 is an independent claim for a segment of sheet piling with two elements: a plurality of panels that are joined together at an angle; and a means for re-enforcing the corner formed by the panels. The second element of Claim 7 related to the re-enforcement of the interior angle of the corner is written in the “means-plus-function” format as allowed by 35 U.S.C. §112 ¶6. It is well settled that, “a claim limitation expressed in the means-plus-function language ‘shall be construed to cover the corresponding structure described in the specification and equivalents thereof’”.

*M.P.E.P. §2181, Pages 216-217 of Section 2100.*

For Claim 7, the corresponding structure in the specification is a re-enforcement with a convex cross-sectional area in the interior angle of the corner. *See* Figures 1 and 2; *see also* Pages 4 – 5, Paragraph 19 of the Present Application. As discussed previously in Section 1.a., Dougherty neither shows nor teaches a re-enforcing means that is located

in the interior (*i.e.*, smaller) angle of the corner. Consequently, the anticipation rejection on the basis of Dougherty fails with respect to Claim 7 for at least these reasons.

*d.) Claim 8*

Claim 8 is dependent claim that depends directly from independent Claim 7. Consequently, the anticipation rejection on the basis of Dougherty fails with respect to Claim 8 for at least the reasons stated in Section 1.c.

*2.) Rejection of Claim 2 under 35 U.S.C. § 103(a) for Obviousness*

The Examiner has rejected Claims 2 as being obvious over Dougherty in view of Lewis. The Examiner states that Dougherty discloses the claimed invention except for the sheet piling being made from anisotropic materials. The Examiner further states that Lewis teaches the use of such materials and that it would be obvious to one of ordinary skill in the art at the time of invention to combine the two references.

Claim 2 is a dependent claim that depends directly from independent Claim 1. As discussed previously in Section 1.a., Applicant has shown the Dougherty does not disclose the claimed invention. Specifically, Dougherty neither shows nor teaches a convex shaped re-enforcement that is located in the interior (*i.e.*, smaller) angle of the corner. Consequently, the obviousness rejection over Dougherty in view of Lewis fails with respect to Claim 2 for at least these reasons.

4.) Conclusion

In view of the preceding remarks, the rejections of Claims 1-8 have been overcome. Therefore, Applicant respectfully requests the withdrawal of all outstanding rejections and an issuance of a Notice of Allowance for all pending claims.

Please apply any additional fees or credits to Deposit Account #: 50-0954,  
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Respectfully Submitted,



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1/5/05  
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